

Reasoning and Problem Solving

Step 4: Tens and Ones 2

National Curriculum Objectives:

Mathematics Year 2: (2N2a) [Read and write numbers to at least 100 in numerals and in words](#)

Mathematics Year 2: (2N3) [Recognise the place value of each digit in a two-digit number \(tens, ones\)](#)

Mathematics Year 2: (2N4) [Identify, represent and estimate numbers using different representations, including the number line](#)

Mathematics Year 2: (2N6) [Use place value and number facts to solve problems](#)

Differentiation:

Questions 1, 4 and 7 (Reasoning)

Developing Explain if a statement about a number sentence is correct or not. Using numbers up to 99, with numbers represented with Base 10.

Expected Explain if a statement about a number sentence is correct or not. Using numbers up to 99, with numbers represented with a variety of pictorial representations.

Greater Depth Explain if a statement about a number sentence is correct or not. Using numbers up to 99, with numbers represented with a variety of pictorial representations and unconventional partitioning.

Questions 2, 5 and 8 (Problem Solving)

Developing Use the pictorial representations to create three addition number sentences. Use numbers up to 99.

Expected Use the pictorial representations to create five addition number sentences. Use numbers up to 99.

Greater Depth Use the pictorial representations to create five addition number sentences. Use numbers up to 99. Numbers represented with mixed pictorial representations with unconventional partitioning.

Questions 3, 6 and 9 (Problem Solving)

Developing Use the digit cards to create 3 addition number sentences. Numbers up to 99 given in digits. Numbers up to 99 given in digits and pictorially.

Expected Use the digit cards to create 3 addition number sentences. Numbers up to 99 given in digits.

Greater Depth Use the digit cards to create 3 addition number sentences. Numbers up to 99 given in digits. Numbers up to 99 unconventionally partitioned given in digits and words.

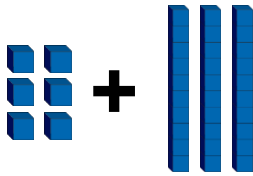
More [Year 2 Place Value](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

Tens and Ones 2

Tens and Ones 2

1a. Edwin is using concrete resources to make number sentences.



He says,



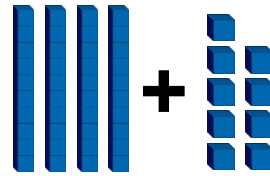
The number sentence is
 $60 + 3 = 63$.

Is Edwin correct? Convince me.



R

1b. Brenda is using concrete resources to make number sentences.



She says,



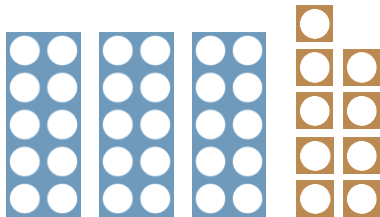
The number sentence is
 $40 + 9 = 49$.

Is Brenda correct? Convince me.



R

2a. Use the Numicon to create number sentences for the number 37.



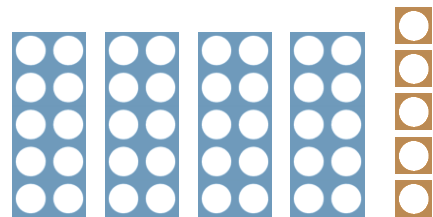
$$\square + \square = \square$$

Find 3 possibilities.



PS

2b. Use the Numicon to create number sentences for the number 45.



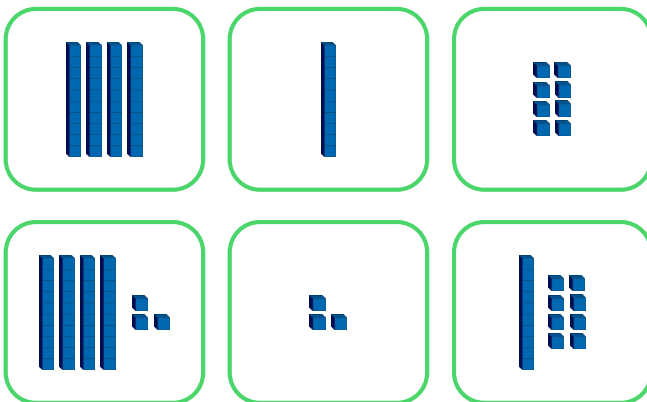
$$\square + \square = \square$$

Find 3 possibilities.



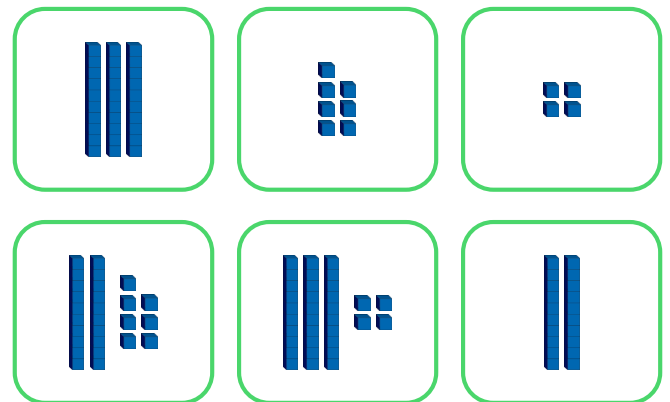
PS

3a. Use all the number cards below to make 2 addition number sentences.



PS

3b. Use all the number cards below to make 2 addition number sentences.

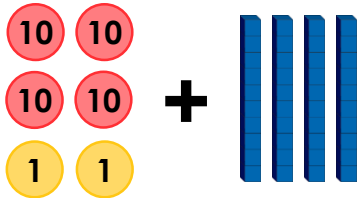


PS

Tens and Ones 2

Tens and Ones 2

4a. Harry is using concrete resources to make number sentences.



He says,



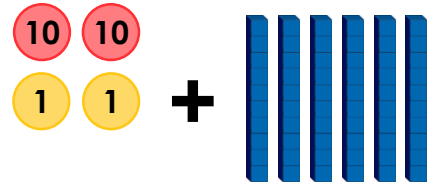
The number sentence is
 $42 + 4 = 46$.

Is Harry correct? Convince me.



R

4b. Sally is using concrete resources to make number sentences.



She says,



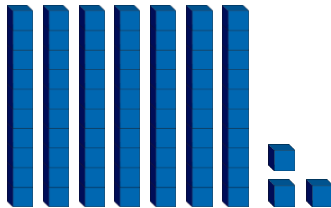
The number sentence is
 $22 + 60 = 82$.

Is Sally correct? Convince me.



R

5a. Use the Base 10 to create number sentences for the number 73.



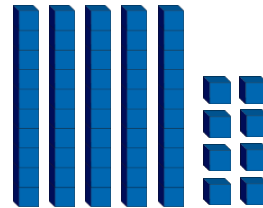
$$\square + \square = \square$$

Find 5 possibilities.



PS

5b. Use the Base 10 to create number sentences for the number 58.



$$\square + \square = \square$$

Find 5 possibilities.



PS

6a. Use all the number cards below to make 3 addition number sentences.

13

10

33

48

40

25

20

35

8



PS

6b. Use all the number cards below to make 3 addition number sentences.

11

21

8

32

17

30

25

2

10

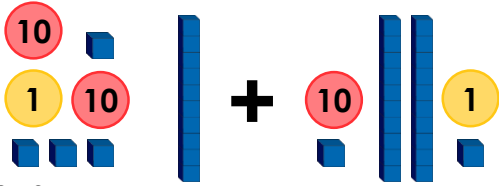


PS

Tens and Ones 2

Tens and Ones 2

7a. Hamish is using concrete resources to make number sentences.



He says,



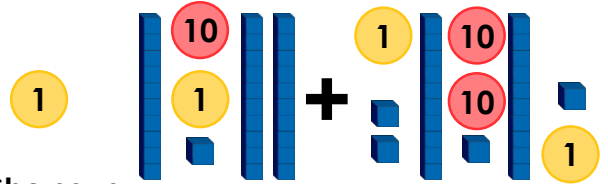
The number sentence is
 $44 + 33 = 77$.

Is Hamish correct? Convince me.



R

7b. Agnes is using concrete resources to make number sentences.



She says,



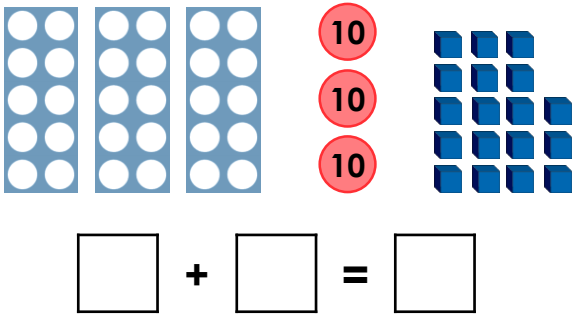
The number sentence is
 $80 + 9 = 89$.

Is Agnes correct? Convince me.



R

8a. Use the resources to create number sentences for the number below.

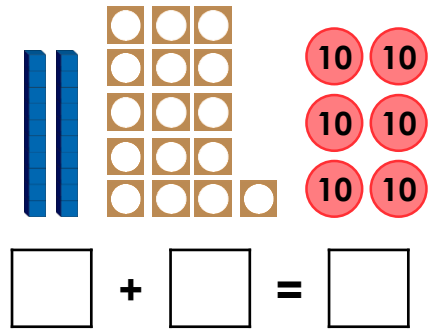


Find 5 possibilities.



PS

8b. Use the resources to create number sentences for the number below.



Find 5 possibilities.



PS

9a. Use all the number cards below to make 3 addition number sentences.

31	sixty-seven	26
56	12	forty-eight
fourteen	eleven	seventy-nine

9b. Use all the number cards below to make 3 addition number sentences.

twenty-nine	ninety-eight	eighty-five
23	62	fifty-nine
30	35	63



PS



PS

Reasoning and Problem Solving Tens and Ones 2

Developing

- 1a. Edwin is not correct as there actually 3 tens and 6 ones. He has mixed them up. The number sentence should be $30 + 6 = 36$.
- 2a. Various answers, for example: $30 + 7 = 27$; $17 + 20 = 37$; $12 + 25 = 37$
- 3a. $40 + 3 = 43$; $10 + 8 = 18$

Expected

- 4a. Harry is not correct as there are 4 tens and 2 ones added to 4 tens. This is $42 + 40$ which equals 82.
- 5a. Various answers, for example: $60 + 13 = 73$; $23 + 50 = 73$; $42 + 31 = 73$; $63 + 10 = 73$; $22 + 51 = 73$
- 6a. $10 + 25 = 35$; $8 + 40 = 48$; $20 + 13 = 33$

Greater Depth

- 7a. Hamish is not correct as there are 3 tens and 5 ones added to 3 tens and 3 ones. This is $35 + 33$ which equals 68.
- 8a. Various answers, for example: $60 + 18 = 78$; $40 + 38 = 78$; $45 + 33 = 78$; $22 + 56 = 78$; $26 + 52 = 78$
- 9a. $12 + \text{fourteen} = 28$; $\text{forty-eight} + 31 = \text{seventy-nine}$; $\text{eleven} + 56 = \text{sixty-seven}$

Reasoning and Problem Solving Tens and Ones 2

Developing

- 1b. Brenda is correct as there are 4 tens and 9 ones, meaning her number sentence of $40 + 9 = 49$ matches the representation.
- 2b. Various answers, for example: $40 + 5 = 45$; $22 + 23 = 45$; $14 + 31 = 45$
- 3b. $30 + 4 = 34$; $20 + 7 = 27$

Expected

- 4b. Sally is correct as there are 2 tens and 2 ones added to 6 tens. This is $22 + 60$ which equals 82.
- 5b. Various answers, for example: $50 + 8 = 58$; $44 + 14 = 58$; $23 + 35 = 58$; $18 + 40 = 58$; $31 + 27 = 58$
- 6b. $17 + 8 = 25$; $2 + 30 = 32$; $10 + 11 = 21$

Greater Depth

- 7b. Agnes could be correct as there are 8 tens and 9 ones in total which would make a number sentence of $80 + 9 = 89$. The representation shows $43 + 46 = 89$.
- 8b. Various answers, for example: $20 + 76 = 96$; $46 + 50 = 96$; $31 + 65 = 96$; $11 + 85 = 96$; $82 + 14 = 96$
- 9b. $30 + \text{twenty-nine} = \text{fifty-nine}$; $35 + 63 = \text{ninety-eight}$; $62 + 23 = \text{eighty-five}$